

Dkt. No.: OP-093000139

REMARKS

Claims 1-7 are pending in this application. The Examiner has rejected claims 1-3 and 5-6, and claims 4 and 7 under 35 U.S.C. §103(a) as being unpatentable over Meir (6,567,262) and further in view of Noda et al. (6,698,500), respectively.

Meir's high power active cooling system as in Figure 1 has different arrangement from Applicants' water-cooling heat dissipation system as in Figure 2. The amended claim 1 of the invention discloses that the second cooling base 5 including the cryogenic chip 6 is connected between the heat sink 1 and the water pump 3 from the water inlet end of the circulating loop 2. In stead, Meir's heat sink 18 including the thermal electric cooler (TEC) 14 is connected between the heat sink 20 and the pump 22 from the outlet end of the cooling liquid circuit 16. The arrangement of Applicants' invention can provide much cooler water to directly supply for cooling CPU. However, according to Meir's arrangement, the cooling liquid has to pass through the pump before providing for cooling. As such, the cooling liquid will absorb more heat, especially during through the pump, and the cooling effect is reduced. That is, Applicants' invention can provide more efficient cooling system than Meir's.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or the combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claimed limitations.

There is not any suggestion or desirability for Meir or further combining Noda to


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obtain the pending claim 1. Further, even if Meir should be modified or combined by the teaching of Noda, no reasonable expectation of success is foreseeable. Thirdly, the combination does not teach or suggest all the claimed limitations, particularly the arrangement of the cooling system. Therefore, the Examiner does not meet with the requirement of establishing a *prima facie* case of obviousness. The rejections over claims 1-7 are thus respectfully traversed.

In view of the foregoing, the application is believed to be in condition for allowance. Entry of the amendments and issuance of a Notice of Allowance is therefore respectfully requested. If any additional fee is required, please charge Deposit Account Number 502751, authorized by Chun-Ming Shih signed 

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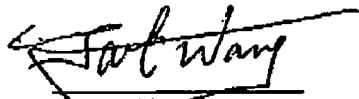
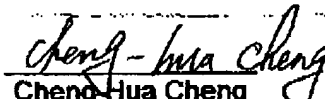
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Accordingly, the application is deemed to be in condition for allowance and such a
Notice is earnestly solicited.

Respectfully submitted,


Jack Wang
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